REMARKS/ARGUMENTS

This reply is fully responsive to the Office Action dated 7 SEPTEMBER 2008, and is filed within FIVE - (5) months following the mailing date of the Office Action. The Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136(a) requesting an extension of time of the number of months necessary to make this response timely filed. The method of payment and fees for petition fee due in connection therewith is enclosed.

Objection/Rejection Summary:

This application has been carefully reviewed in light of the Office Action of July 7, 2008, wherein:

A. Claims 1-9, 11-26, 28-43, 45-60, and 62-68 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention;

B. Claims 1, 2, 16, 18, 19, 33, 35, 36, 50, 52, 53, and 67 were rejected under 35 U.S.C. § 102(b) as being anticipated by a journal publication submitted by Nadkarni et al. and titled "A Bayesian Network Approach to Making Inferences in Causal Maps," European Journal of Operational Research 128, 2001, pages 479-498 (hereinafter referred to as "the Nadkarni publication");

C. Claims 3-9, 11-15, 20-26, 28-32, 37-43, 45-49, 54-60, and 62-66 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Nadkarni publication, in view of a Ph.D. thesis published by Murphy and titled "Dynamic Bayesian Networks: Representation, Inference, and Learning," Fall 2002 (herein referred to as the "Murphy thesis"); and

D. Claims 17, 34, 51, and 68 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Nadkarni publication, in view of U.S. Publication No. 2001/0011260, published by Skaanning et al. (hereinafter referred to as the "Skaanning publication").

Claim Rejections - 35 U.S.C. § 112, second paragraph

A. The Examiner rejected Claims 1-9, 11-26, 28-43, 45-60, and 62-68 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding independent Claims 1, 18, 35, and 52

i) The Examiner stated that the Examiner was unable to find a limiting definition in the specification for the terms "evidence node," "conclusion node," "evidence state," and "conclusion state," and as such, the Examiner found these terms vague and indefinite.

The terms "evidence node," "conclusion node," "evidence state," and "conclusion state," are standard terms commonly used in the art of Bayesian Network models and are terms well known by a person of ordinary skill in the art of Bayesian Network (BN) models for decision support.

The Applicants submit that the CCPA has stated that under 35 U.S.C. § 112, "not every last detail is to be described, else patent specifications would turn into production specifications, which they were never intended to be." *In re* Gay, 309 F.2d 769 (C.C.P.A.)

Therefore, the Applicants believe that there is no reason to submit, in the patent specification, extensive definitions for such terms as "evidence node," "conclusion node," "evidence state," and "conclusion state," since these terms are standard terms commonly used in Bayesian Network models, and as such, they are terms well known by a person of ordinary skill in the art of Bayesian Network (BN) models for decision support. Furthermore, the Applicants refer the Examiner to pages 9 and 10, and paragraph [51] of the specification, where the specification clearly states that "In the BN model, **conclusion nodes are all the nodes representing the system**

failures that need to be diagnosed. **Evidence nodes are all the nodes that model symptoms and test results**. During diagnosis, **state information for some of the evidence nodes is obtained**, e.g. by determining some symptoms are present or absent and that some tests have passed or failed." The Applicants further refer the Examiner to page 10, paragraph [53] of the specification for further examples of conclusion nodes and evidence nodes.

Therefore, the Applicants assert that in the art of Bayesian networks' (BN) models, the networks are directed graphs, which consist of nodes and directed links. The Applicants further assert that each node has a number of exclusive states, and the elements of a decision domain are represented with nodes and the relations between the elements are modeled with links.

The Applicants suggest that, if the Examiner still finds the terms "evidence node," "conclusion node," "evidence state," and "conclusion state," vague and indefinite, the Examiner may look at their English language definitions, which appropriately define the purpose and meaning of each node and state, in relation to their function within a network or graph. The word "node" is defined by the American Heritage Dictionary as, "The point at which a continuous curve crosses itself. Mathematics: point of intersection: a point where lines meet or intersect in a diagram or graph." *The American Heritage Dictionary of the English Language, Fourth Edition, Copyright 2000, by the Houghton Mifflin Company.* Thus, the Applicants believe that the use of the word is proper and not indefinite, as the word "node" clearly defines the point at which continuous links cross or intersect in a graph. The word "evidence" is defined by the American Heritage Dictionary as, "A thing or things helpful in forming a conclusion or judgment." *The American Heritage Dictionary of the English Language, Fourth Edition, Copyright 2000, by the Houghton Mifflin Company.* Thus, the Applicants believe that the use of "evidence node" is proper and not indefinite, as the words "evidence node" clearly defines a node (point at which links in a network intersect) that contains a thing or things helpful in forming a conclusion or judgment (evidence). The word "conclusion" is defined by the American Heritage Dictionary

as, "A judgment or decision reached after deliberation." *The American Heritage Dictionary of the English Language, Fourth Edition, Copyright 2000, by the Houghton Mifflin Company.* Thus, the Applicants believe that the use of "conclusion node" is proper and not indefinite, as the words "conclusion node" clearly defines a node (point at which links in a network intersect) that contains a judgment or decision reached after deliberation (conclusion). Furthermore, the word "state" is defined by the American Heritage Dictionary as, "A condition or mode of being, as with regard to circumstances." *The American Heritage Dictionary of the English Language, Fourth Edition, Copyright 2000, by the Houghton Mifflin Company.* Thus, the Applicants believe that the use of the words "evidence state" and "conclusion state" is proper and not indefinite, as the word "evidence state" clearly defines a condition or mode of being of a "evidence node" and the word "conclusion state" clearly defines a condition or mode of being of a "conclusion node."

In addition, in order to aid the Examiner to better understand and properly interpret the teachings of the prior art and the present invention, the Applicants submit the following two paragraphs summarizing decision support theory and its relationship to the terms "evidence node," "conclusion node," "evidence state," and "conclusion state."

The Applicants submit that the present invention addresses the area of decision support, in which a human decision maker is helped by a computer system in selecting the most appropriate conclusion given the available evidence. For example, in system diagnosis, the decision maker has to identify which component(s) failed based on symptoms of failure and/or test results. Therefore, in system diagnosis, the conclusions are states of components (e.g., defective or OK) and the evidence consists of presence or absence of symptoms and of outcomes of the tests. In general, the conclusions represent items about which we make decisions and evidence is all the items that constitute inputs for the decision.

The Applicants submit that one creates decision support systems using models of the decision domain. In particular, one uses Bayesian networks' (BN) models, wherein **the networks are directed graphs, which consist of nodes and directed links. Each node has a number of exclusive states. The elements of a decision domain are represented with nodes and relations between the elements are modeled with links. Thus, conclusions of the decision domain are modeled using conclusion nodes and their states, whereas evidence elements of the domain are modeled with evidence nodes and their states.** For example, in the system diagnosis domain "conclusion nodes" are component or subsystem nodes, while "conclusion node states" or "conclusion states" are failure modes of the components, e.g., a valve will be modeled using a valve node (conclusion node) with three exclusive states (e.g., conclusion states, such as valve-stuck-open, valve-stuck closed, valve-OK). In contrast, the "evidence nodes" will be symptom and test nodes, and the "evidence states" will be symptom and test o0utcomes, e.g., for the valve one may have a pressure test (evidence node), which one would model with a pressure node (evidence node) with three states (e.g., evidence states, such as pressure-high, pressure-normal, and pressure-low).

ii-a) The Examiner further stated that the limitation "determining...a plurality of samples of most likely states of the evidence nodes" is vague and indefinite. Thus, the Examiner asked what is the threshold value for determining which values of states are "most likely" to occur? The Examiner further stated that meaning of the term "samples" within the context of the limitation is indefinite.

The Applicants believe that the Examiner is misinterpreting the present invention and decision support theory in general, since **the term "most likely" is a standard term used in probability theory and it refers to the states with the highest probability distribution, thus there is no threshold involved in the decision, as inferred by the Examiner's question.** The Applicants further believe that there is no ambiguity implied by the term "most likely" in the content of Bayesian network models for decision support and in the content disclosed by the independent Claims

1, 18, 35, and 52, since Bayesian network models are graphical probabilistic models that constitute a probabilistic description of the relations between the elements of the decision domain. In addition, the Applicants submit that **the term "sample" refers to sampling the probability distribution of the states to determine the highest probability distribution which leads to the most-likely state**.

The Applicants suggest that perhaps the Examiner should review some of the basis of decision support theory and probability theory (Bayesian Networks) in order for the Examiner to be able to fully understand the present invention and the prior art cited by the Examiner in this Office Action.

Once again, the Applicants submit the following paragraphs summarizing the present invention as related to the Examiner rejections under 35 USC 112, in order to aid the Examiner to better understand and properly interpret the teachings of the present invention.

The Applicants assert that **Bayesian network models are graphical probabilistic models** of the decision domain. **They constitute a probabilistic description of the relations between the elements of the decision domain** (i.e., evidence and conclusion). In terms of rudimentary probability theory they represent a joint probability distribution over the nodes of the model (i.e., joint probability distribution over evidence and conclusion nodes). Generally, the models are used in decision support to recommend the most probable conclusion given the evidence. The inputs are known states of evidence nodes, and given these states and the BN model (i.e., the joint probability distribution), one can compute a posterior probability of the states of conclusion nodes. This computation is referred to as inference or belief propagation.

The Applicants assert that in addition to inference or belief propagation, the present invention further discloses the evaluation of BN model for decision support. In the first step of the BN evaluation procedure, the present invention

begins with a selection of a conclusion node. Next, a state is selected for that node. Then it is assumed that the selected node is in the selected state. Thereafter, the BN is used to compute posterior probability of the states of all evidence nodes given that the selected conclusion node is in the selected state (referring to pages 12 and 13 of the specification, paragraph [71]). **The result is a probability distribution over the states of each of the evidence nodes. Some of the states will be more likely than the others based on their probability distribution.** This is a particular form of belief propagation given a particular assumption about states of the of the conclusion nodes.

The Applicants submit that in the second step of the BN evaluation procedure, the present invention **selects a most likely state of all the evidence nodes given the probability distributions over the states obtained in the previous step.** This selection is done by means of sampling of the distributions, e.g., Monte Carlo sampling (referring to pages 13 and 14 and paragraphs [74] and [75] of the specification). **The result of the sampling is identification of one specific state for each of the evidence nodes**.

iii) The Examiner further stated that the limitation "setting the states of the evidence nodes to states corresponding to the plurality of samples of the evidence states" is vague and indefinite. The Examiner stated that based on the previous limitation, it appears that more than one value for each state is ascertained, and the Examiner wants to know how it is determined which of these plurality of values will be assigned to each of the evidence nodes.

The Applicants refer the Examiner to the paragraph above, where the Applicants stated that "the result of the sampling is identification of one specific state for each of the evidence nodes," which is common knowledge to one skill in the art of Bayesian Network (BN) models for decision support.

iv) Next, the Examiner stated that the limitation "...to obtain a plurality of probabilities of the resulting states of the conclusion nodes" is indefinite. The Examiner asked if a plurality of probabilities for each node was obtained or if just one probability for each node was obtained.

The Applicants submit that a single probability is obtained for each state of each conclusion node as known to one skill in the art of Bayesian Network (BN) models for decision support. This is disclosed in the third step of the BN evaluation procedure, where one assumes that the states of all the conclusion nodes are unknown. One also assumes that the states of the evidence nodes are identical to those obtained by sampling in step two. Then, given these assumptions, one computes posterior probability of conclusion states given the evidence states. The Applicants submit that this step is simply a diagnostic probabilistic inference step. **The Applicants submit that the result is a single probability for each state of each conclusion node** (referring to page 13, paragraph [74] of the specification).

For the foregoing reasons, the Applicants submit that the claims are not indefinite and respectfully request that this rejection of Claims 1-9, 11-26, 28-43, 45-60, and 62-68 under the second paragraph of 35 U.S.C. § 112 be withdrawn.

Claim Rejections - 35 USC § 102(a)

B. In page 3 of the current Office Action, the Examiner rejected Claims 1, 2, 16, 18, 19, 33, 35, 36, 50, 52, 53, and 67 under 35 U.S.C. § 102 (a) as being clearly anticipated by the Nadkarni publication.

Regarding the rejections of independent Claims 1, 18, 35, and 52 over the Nadkarni publication

The cited prior art does not establish a prima facie case of anticipation

Addressing the requirements of anticipation, the Federal Circuit stated that "There must be no difference between the claimed invention and the reference disclosure, as

viewed by a person of ordinary skill in the field of the invention" *Scripps Clinic & Research Found. V. Genentech Inc.*, 927 F.2d 1576 (Fed. Cir. 1991). Furthermore, the Federal Circuit stated that "Anticipation requires that every element of the claims appear in a single reference ..." *Continental Can Co. USA v. Monsanto Co.*, 948 F.2d 1264 (Fed. Cir. 1991), and that "Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration." *W.L. Gore & Associates v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983). In addition, the Federal Circuit further stated that under 35 U.S.C. § 102, "anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim" *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452 (Fed. Cir. 1984).

Therefore, in order to establish a prima facie case of anticipation the Examiner must set forth an argument that provides (1) a single reference (2) that teaches or enables (3) each of the claimed elements (as arranged in the claim) (4) either expressly or inherently and (5) as interpreted by one of ordinary skill in the art. All of these factors must be present, or a case of anticipation is not met.

The Applicants assert that the Examiner has failed to establish a single reference that teaches or enables each of the elements of the claimed invention. Specifically, the cited prior art fails to teach the elements of (a) **setting the states of the conclusion nodes to desired conclusion states and determining, by propagating down the causal dependency links, a corresponding probability of occurrence of evidence states of the evidence nodes and producing, from the probability of occurrence, a plurality of samples of most likely states of the evidence nodes; and (b) setting the states of the evidence nodes to states corresponding to the plurality of samples of the evidence states**, and propagating the evidence states back up the causal dependency links to the conclusion nodes, to obtain a plurality of probabilities of the resulting states of the conclusion nodes, as claimed in independent Claims 1, 18, 35, and 52.

(a) The prior art fails to teach "...setting the states of the conclusion nodes to desired conclusion states and determining, by propagating down the causal dependency links, a corresponding probability of occurrence of evidence states of the evidence nodes and producing, from the probability of occurrence, a plurality of samples of most likely states of the evidence nodes..."

The Applicants firmly believe that the Examiner has misinterpreted the claimed subject matter of the present invention and of the Nadkarni document, since the Nadkarni document clearly discloses a Bayesian network approach to making inferences in causal maps (propagation back up from the cause nodes through the link network towards the effect nodes). The Applicants respectfully contend that Examiner has mistakenly equated the Bayesian causal maps developed by the Nadkarni document to represent and analyze domain knowledge of experts (referring to the Abstract of the Nadkarni document) with the present invention which automatically evaluates Bayesian network models (such as the Bayesian causal maps taught by the Nadkarni document) for their accuracy.

Furthermore, the Applicants assert that the Examiner is even misinterpreting the simplest terms taught by the Nadkarni document, such as causal nodes and effect nodes. The Applicants respectfully submit that the Examiner mistakenly stated that the Nadkarni document teaches evidence nodes (referring to section 4.1.2 "effect nodes") and conclusion nodes (referring to section 4.1.2 "cause nodes"). The Applicant agrees that the Nadkarni document teaches evidence nodes and conclusion nodes; however, the Applicants emphasize that the cause nodes taught by the Nadkarni document correspond to the evidence nodes of the present invention (not the conclusion nodes as inferred by the Examiner), while the effect nodes taught by the Nadkarni document correspond to the conclusion nodes of the present invention. The Applicants refer the Examiner to the Nadkarni document, page 487, column 1, second paragraph, where the Nadkarni document clearly teaches that a reasoning process is called deductive when reasoning from causes (evidence) to effects

(conclusions). The Nadkarni document even provides an example of their causal reasoning in the medical domain, where risk factors (e.g., smoking) are regarded as causes (or evidence) and the diseases (e.g., lung cancer) as the effect or the conclusion of the action (causes or evidence). The Applicants refer the Examiner to page 5, paragraph [22] the specification of the present application, where similar comparisons are made regarding the evidence nodes and conclusion nodes. Paragraph [22] of the specification states that "...the conclusion nodes representing component failures or diseases, the evidence nodes representing recognizable symptoms of those failures or diseases." **Therefore, it is extremely clear that the "cause nodes" taught by the Nadkarni document directly correspond to the "evidence nodes" of the present invention, and the effect nodes taught by the Nadkarni document directly correspond to the conclusion nodes of the present invention.**

The Applicants submit that the Examiner has completely misinterpreted the teachings of the Nadkarni document when the Examiner stated that the Nadkarni document teaches in section 4.1.2 (referring to deductive reasoning from causes to effect) that setting the states of the conclusion nodes to desired conclusion states and determining, by propagating down the causal dependency links, a corresponding probability of occurrence of evidence states of the evidence nodes and producing, from the probability of occurrence, a plurality of samples of most likely states of the evidence nodes (referring to section 3.2: posterior joint distribution of variables calculated).

The Applicants refer the Examiner to the abstract of the Nadkarni document and to section 4.1.2 (referring to page 487 and figure 5) which **emphasize the derivation of casual maps**. The Applicants submit that the Nadkarni document clearly states that **the main goal of the Nadkarni document is to describe a new graphical structure called "Bayesian causal maps" used to represent and analyze the domain knowledge of experts** (referring to Abstract of the Nadkarni document). The Applicants further submit that section 4.1.2 and figure 5, **clearly illustrate the**

causal propagation of the Bayesian causal map, which flows from cause (evidence) to effect (conclusion). The Nadkarni document teaches that causal statement involves the use of logical deduction and that the reasoning is in the direction of causation (cause towards effect, e.g., evidence toward conclusion). Therefore, the Examiner is completely contradicting the teaching of the Nadkarni document causal reasoning when the Examiner states that the Nadkarni document teaches to "set the states of the conclusion nodes to desired conclusion states and determining, by propagating down the causal dependency links, a corresponding probability of occurrence of evidence states of the evidence nodes," since this is moving from conclusion towards evidence (going from effect to causes), which is completely against the teachings of the Nadkarni document and its Bayesian causal map.

The Applicants emphasize that in order to evaluate the performance of a BN model, the first step in the evaluation process is to set the conclusion nodes to a desire (unknown) conclusion (start with a known effect) and then propagating down the causal dependency links to determine the corresponding probability of occurrence of evidence states of the evidence nodes (finding the cause), and **this first evaluation step is completely the opposite of the causal propagation taught by the Nadkarni document.**

With all due respect, the Applicant recommends that the Examiner seek assistance from a person skilled in the art of Bayesian Network (BN) models for decision support within the USPTO, in order to properly interpret the teachings of the prior art.

In order to expedite the evaluation of the present invention and to help the Examiner understand the teachings of the claimed subject matter in comparison with the prior art, the Applicants submit the following paragraphs highlighting the differences between the prior art and the novelty of the present invention.

As previously stated, Bayesian network models are graphical probabilistic models of the decision domain that are used in decision support to recommend the most probable conclusion given the evidence. This computation is referred to as inference or belief propagation (propagation back up from the evidence nodes through the link network towards the conclusion nodes). **The Applicants submit that all of the cited prior art (referring to the Nadkarni document, the Murphy thesis, and the Skaanning publication) use or design Bayesian network models to evaluate known evidence (causes) in order to provide a conclusion (which is unknown at the start of the process).**

The Applicants submit that the present invention is not about Bayesian network inference to determine conclusion given evidence. In contrast, the present invention relates to a novel technique for evaluating or predicting the accuracy of a BN model and determining what parameters may be providing inaccuracies within the BN model, either because of inaccurate modeling or because of real-world observations (referring to pages 1 to 2, paragraphs [04] to [09] of the present invention). That is, the Applicants submit that the present invention is used to automatically (without a user's interference or input) evaluate the accuracy of Bayesian network models for decision support, which have been previously created by "domain experts" such as the "Bayesian causal map" taught by the Nadkarni document.

The Applicants further submit that before BN models can be used in decision support, they have to be extensively evaluated, and that typical evaluation relies on comparing the answers suggested by the BN models with those expected by human experts. The evaluation is generally limited to a relatively small number of decision cases, for which the experts know the correct answer. Therefore, a conventional evaluation of BN models is typically based on a limited ad-hoc testing. Thus, what is needed is a systematic approach for evaluating the performance of a BN model. **The present invention solves this need by providing a method for automatically**

evaluating the accuracy of the BN models themselves and not evaluating the performance of a system that these BN models represent (modeled).

The Applicants emphasize that the first step in the evaluation of a BN model, which consists of setting the conclusion nodes to a desire (unknown) conclusion and then propagating down the causal dependency links to determine the corresponding probability of occurrence of evidence states of the evidence nodes, **is not taught, disclosed, or suggested by any of the cited prior art.**

b) The prior art fails to teach "...setting the states of the evidence nodes to states corresponding to the plurality of samples of the evidence states, and propagating the evidence states back up the causal dependency links to the conclusion nodes, to obtain a plurality of probabilities of the resulting states of the conclusion nodes..."

The Applicants believe that this second step in the evaluation of a BN model, which consists of setting the states of the evidence nodes to states corresponding to the plurality of samples of the evidence states, and propagating the evidence states back up the causal dependency links to the conclusion nodes, to obtain a plurality of probabilities of the resulting states of the conclusion nodes, **is what has led the Examiner to misinterpret the teachings of the cited art and the present invention, since this second step is remotely similar to a diagnostic inference step, such as the causal reasoning taught by the Nadkarni document.**

However, **the Applicants submit that this second evaluation step** (referring to (b) above) **differs from the prior art since** the states of the evidence nodes are set to states corresponding to the plurality of samples of the evidence states obtained during the first evaluation step. Alternatively, in the Bayesian causal map taught by the Nadkarni document (referring to abstract), **the states of the evidence nodes are set to states determined by the domain knowledge of experts.**

Therefore, because the Nadkarni document fails to teach all the elements of independent Claims 1, 18, 35, and 52, arranged exactly as in Claims 1, 18, 35, and 52, the Applicants respectfully request that the Examiner withdraw this rejection of Claims 1, 18, 35, and 52 under 35 U.S.C. § 102(b).

Dependent Claims

Regarding Claims 2-17, 19-34, 36-51, and 53-68

The Applicants submit that Claims 2-17 are dependent upon Claim 1, Claims 19-34 are dependent upon Claim 18, Claims 36-51 are dependent upon Claim 35, and Claims 53-68 are dependent upon Claim 52. For at least the reasons given above, the Applicants submit that Claims 1, 18, 35, and 52 are patentable over the cited prior art. Therefore, the Applicants submit that Claims 2-17, Claims 19-34, Claims 36-51, and Claims 53-68 are also patentable under over the cited prior art, at least based on their dependence upon an allowable base claim and solicit reconsideration and allowance of these claims.

CONCLUSION

The Applicants respectfully submit that in light of the above amendment/remarks, all claims are now in allowable condition. The Applicants thus respectfully request timely allowance of all of the pending claims.

Any claim amendments that are not specifically discussed in the above remarks are not made for patentability purposes, and it is believed that the claims would satisfy the statutory requirements for patentability without the entry of such amendments. Rather, these amendments have only been made to increase claim readability, to improve grammar, and to reduce the time and effort required of those skilled in the art to clearly understand the scope of the claim language. Furthermore, any new claims presented above are of course intended to avoid the prior art, but are not intended as replacements or substitutes of any cancelled claims. They are simply additional specific statements of inventive concepts described in the application as originally filed.

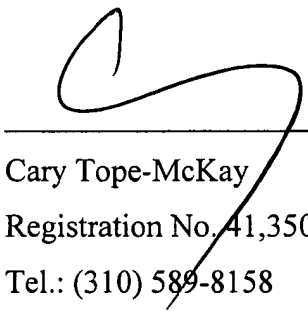
Further, it should be noted that amendment(s) to any claim is intended to comply with the requirements of the Office Action in order to elicit an early allowance, and is not intended to prejudice Applicants' rights or in any way to create an estoppel preventing Applicants from arguing allowability of the originally filed claim in further off-spring applications.

In the event the Examiner wishes to discuss any aspect of this response, or believes that a conversation with either Applicants or Applicants' representative would be beneficial, the Examiner is encouraged to contact the undersigned at the telephone number indicated below.

The Commissioner is authorized to charge any additional fees that may be required or credit overpayment to the attached credit card form. In particular, if this response is not timely filed, the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136(a) requesting an extension of time of

the number of months necessary to make this response timely filed. The petition fee due in connection therewith may be charged to deposit account no. 50-2738 if a credit card form has not been included with this correspondence, or if the credit card could not be charged.

Respectfully submitted,



Cary Tope-McKay
Registration No. 41,350
Tel.: (310) 589-8158